## ABSTRACT

Disclosed is a method for in-situ sampling and measuring particulate fineness in a process stream, comprising (a) sampling particles in-situ from a process stream, (b) adjusting the sample to conditions suitable for LII, (c) measuring the fineness using LII, and (d) correlating the LII fineness measurement with actual particle fineness. Also disclosed is a method for sampling and controlling a process based on the real-time, on-line, in-situ methods for sampling and measuring particles. Sampling can comprise drawing a sidestream from a source of the particles. Adjusting the sample to conditions suitable for LII can comprise diluting the sample or bringing the temperature of the sample to ambient conditions. Correlating may comprise using a correlation function determined by comparing LII measurements and laboratory fineness measurements for particle samples drawn at the same time